

# SCN Series Solid Tantalum Chip Capacitors



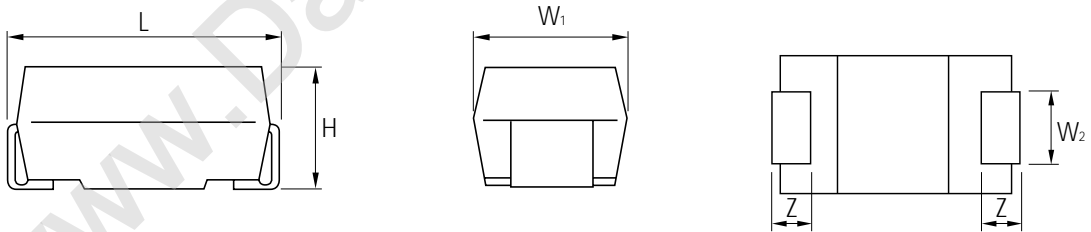
## FEATURES

- Molded Case available in four case codes.
- Compatible with automatic pick and place equipment.
- Meets or Exceeds EIA standard 53BAAC

## PERFORMANCE / ELECTRICAL CHARACTERISTICS

- Operating Temperature: -55 °C to +85 °C (To +125 °C with voltage derating)
- Capacitance Range: 0.15 μF to 68 μF
- Capacitance Tolerance: ±20%, ±10% standard
- Operating Voltage: 4WVDC to 35WVDC
- Compliant Terminations: 90/10 SnPb finish

## Case Dimensions



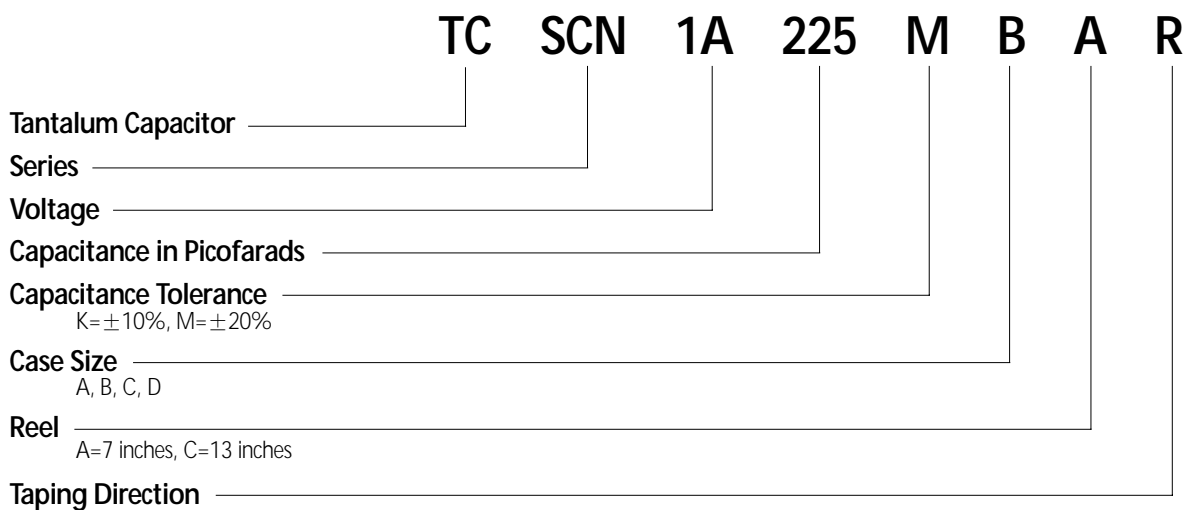
Unit : mm(inch)

Case Code	L	W <sub>1</sub>	W <sub>2</sub>	H	Z
A	3.2±0.2 (0.126±0.008)	1.6±0.2 (0.063±0.008)	1.2±0.1 (0.047±0.004)	1.6±0.2 (0.063±0.008)	0.8±0.3 (0.031±0.012)
B	3.5±0.2 (0.138±0.008)	2.8±0.2 (0.110±0.008)	2.2±0.1 (0.087±0.004)	1.9±0.2 (0.075±0.008)	0.8±0.3 (0.031±0.012)
C	6.0±0.3 (0.236±0.012)	3.2±0.3 (0.126±0.012)	2.2±0.1 (0.087±0.004)	2.5±0.3 (0.098±0.012)	1.3±0.3 (0.051±0.012)
D	7.3±0.3 (0.288±0.012)	4.3±0.3 (0.169±0.012)	2.4±0.1 (0.094±0.004)	2.8±0.3 (0.110±0.012)	1.3±0.3 (0.051±0.012)

## Case Size and Rating Voltage

	4(0G)	6.3(0J)	10(1A)	16(1C)	20(1D)	25(1E)	35(1V)
0.15(154)							A
0.22(224)							A
0.33(334)						A	A
0.47(474)				A	A	A	B
0.68(684)				A	A		
1.0(105)			A	A			B
1.5(155)		A	A			B	
2.2(225)	A	A			B	C	
3.3(335)	A			B	C	C	C
4.7(475)			B	C	C	C	D
6.8(685)		B	C	C	C	D	D
10(106)	B	C	C	C	D	D	
15(156)	C	C	C	D	D		
22(226)	C	C	D	D			
33(336)	C	D	D				
47(476)	D	D					
68(686)	D						

How to Order:



## SCN Ratings & Part Number Reference

Part No.	Case Size	Capacitance (μF)	DCL(μA) Max.	DF(%) Max.
4 volt @ 85°C (2.5 volt @ 125°C)				
TCSCN0G225*AAR	A	2.2	0.5	6
TCSCN0G335*AAR	A	3.3	0.5	6
TCSCN0G106*BAR	B	10.0	0.5	6
TCSCN0G156*CAR	C	15.0	0.6	6
TCSCN0G226*CAR	C	22.0	0.9	6
TCSCN0G336*CAR	C	33.0	1.3	6
TCSCN0G476*DAR	D	47.0	1.9	6
TCSCN0G686*DAR	D	68.0	2.7	6
6.3 volt @ 85°C (4 volt @ 125°C)				
TCSCN0J155*AAR	A	1.5	0.5	6
TCSCN0J225*AAR	A	2.2	0.5	6
TCSCN0J685*BAR	B	6.8	0.5	6
TCSCN0J106*CAR	C	10.0	0.6	6
TCSCN0J156*CAR	C	15.0	0.9	6
TCSCN0J226*CAR	C	22.0	1.4	6
TCSCN0J336*DAR	D	33.0	2.0	6
TCSCN0J476*DAR	D	47.0	3.0	6
10 volt @ 85°C (6.3 volt @ 125°C)				
TCSCN1A105*AAR	A	1.0	0.5	4
TCSCN1A155*AAR	A	1.5	0.5	6
TCSCN1A475*BAR	B	4.7	0.5	6
TCSCN1A685*CAR	C	6.8	0.7	6
TCSCN1A106*CAR	C	10.0	1.0	6
TCSCN1A156*CAR	C	15.0	1.5	6
TCSCN1A226*DAR	D	22.0	2.2	6
TCSCN1A336*DAR	D	33.0	3.3	6
16 volt @ 85°C (10 volt @ 125°C)				
TCSCN1C684*AAR	A	0.68	0.5	4
TCSCN1C105*AAR	A	1.0	0.5	4
TCSCN1C335*BAR	B	3.3	0.5	6
TCSCN1C475*CAR	C	4.7	0.7	6
TCSCN1C685*CAR	C	6.8	1.0	6
TCSCN1C106*CAR	C	10.0	1.6	6
TCSCN1C156*DAR	D	15.0	2.2	6
TCSCN1C226*DAR	D	22.0	3.5	6
20 volt @ 85°C (13 volt @ 125°C)				
TCSCN1D474*AAR	A	0.47	0.5	4
TCSCN1D684*AAR	A	0.68	0.5	4
TCSCN1D225*BAR	B	2.2	0.5	6
TCSCN1D335*CAR	C	3.3	0.6	6
TCSCN1D475*CAR	C	4.7	0.9	6
TCSCN1D685*CAR	C	6.8	1.4	6
TCSCN1D106*DAR	D	10.0	2.0	6
TCSCN1D156*DAR	D	15.0	3.0	6
25 volt @ 85°C (16 volt @ 125°C)				
TCSCN1E334*AAR	A	0.33	0.5	4
TCSCN1E474*AAR	A	0.47	0.5	4
TCSCN1E155*BAR	B	1.5	0.5	6
TCSCN1E335*CAR	C	3.3	0.8	6
TCSCN1E475*CAR	C	4.7	1.1	6
TCSCN1E685*DAR	D	6.8	1.7	6
TCSCN1E106*DAR	D	10.0	2.5	6
35 volt @ 85°C (22 volt @ 125°C)				
TCSCN1V154*AAR	A	0.15	0.5	4
TCSCN1V224*AAR	A	0.22	0.5	4
TCSCN1V334*AAR	A	0.33	0.5	4
TCSCN1V474*BAR	B	0.47	0.5	4
TCSCN1V105*BAR	B	1.0	0.5	4
TCSCN1V225*CAR	C	2.2	0.7	6
TCSCN1V335*CAR	C	3.3	1.2	6
TCSCN1V475*DAR	D	4.7	1.6	6
TCSCN1V685*DAR	D	6.8	2.3	6

\* Insert K for ±10% tolerance and M for ±20%.

# SCS Series Solid Tantalum Chip Capacitors



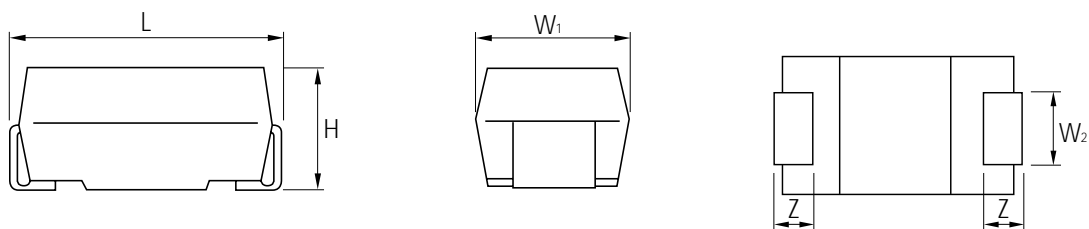
## FEATURES

- Molded Case available in five case codes.
- Extended Range Values.
- Compatible with automatic pick and place equipment.
- Meets or Exceeds EIA standard 53BAAC
- New Low Profile Case Size

## PERFORMANCE / ELECTRICAL CHARACTERISTICS

- Operating Temperature: -55 °C to +85 °C (To +125 °C with voltage derating)
- Capacitance Range: 0.47 $\mu$ F to 220 $\mu$ F
- Capacitance Tolerance:  $\pm$ 20%,  $\pm$ 10% standard
- Operating Voltage: 4WVDC to 35WVDC
- Compliant Terminations: 90/10 SnPb finish

### Case Dimensions



Unit : mm(inch)

Case Code	L	W <sub>1</sub>	W <sub>2</sub>	H	Z
P	2.0 $\pm$ 0.2 (0.079 $\pm$ 0.008)	1.25 $\pm$ 0.2 (0.049 $\pm$ 0.008)	0.9 $\pm$ 0.1 (0.035 $\pm$ 0.004)	1.2 max (0.047 max)	0.5 $\pm$ 0.2 (0.020 $\pm$ 0.008)
A	3.2 $\pm$ 0.2 (0.126 $\pm$ 0.008)	1.6 $\pm$ 0.2 (0.063 $\pm$ 0.008)	1.2 $\pm$ 0.1 (0.047 $\pm$ 0.004)	1.6 $\pm$ 0.2 (0.063 $\pm$ 0.008)	0.8 $\pm$ 0.3 (0.031 $\pm$ 0.012)
B	3.5 $\pm$ 0.2 (0.138 $\pm$ 0.008)	2.8 $\pm$ 0.2 (0.110 $\pm$ 0.008)	2.2 $\pm$ 0.1 (0.087 $\pm$ 0.004)	1.9 $\pm$ 0.2 (0.075 $\pm$ 0.008)	0.8 $\pm$ 0.3 (0.031 $\pm$ 0.012)
C	6.0 $\pm$ 0.3 (0.236 $\pm$ 0.012)	3.2 $\pm$ 0.3 (0.126 $\pm$ 0.012)	2.2 $\pm$ 0.1 (0.087 $\pm$ 0.004)	2.5 $\pm$ 0.3 (0.098 $\pm$ 0.012)	1.3 $\pm$ 0.3 (0.051 $\pm$ 0.012)
D	7.3 $\pm$ 0.3 (0.028 $\pm$ 0.012)	4.3 $\pm$ 0.3 (0.169 $\pm$ 0.012)	2.4 $\pm$ 0.1 (0.094 $\pm$ 0.004)	2.8 $\pm$ 0.3 (0.110 $\pm$ 0.012)	1.3 $\pm$ 0.3 (0.051 $\pm$ 0.012)

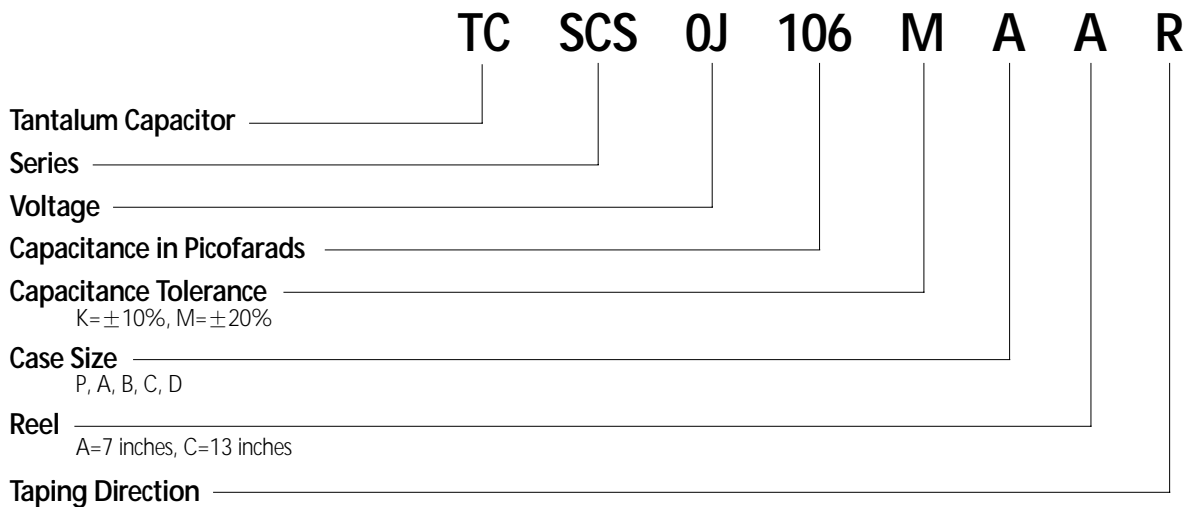
## Case Size and Rating Voltage

	4(0G)	6.3(0J)	10(1A)	16(1C)	20(1D)	25(1E)	35(1V)
0.47(474)							A
0.68(684)						A	A
1.0(105)			P	P	A	A	A
1.5(155)				A	A	A	A, B*
2.2(225)			A	A	A	A, B	B
3.3(335)		P, A	A	A	A, B	B	
4.7(475)	A	P, A	A	A, B	B	B	C
6.8(685)	A	A	A, B	B	B	B, C	C
10(106)	A	P, A, B	A, B	B	B, C	C	D
15(156)	A, B	B	B	B, C	C	D	D
22(226)	A, B	B	B, C	B, C	D	D	
33(336)	B	B, C	B, C	C, D	D		
47(476)	B, C	B, C	C, D	D			
68(686)	C	D	D				
100(107)	D	C, D	D				
150(157)							
220(227)		D					

■ Standard Range  
■ Extended Range  
■ Development Range

\* Contact factory for availability

### How to Order:



## SCS Ratings & Part Number Reference

Part No.	Case Size	Capacitance (μF)	DCL(μA) Max.	DF(%) Max.
4 volt @ 85°C (2.5 volt @ 125°C)				
TCSCS0G475*AAR	A	4.7	0.5	8
TCSCS0G685*AAR	A	6.8	0.5	8
TCSCS0G106*AAR	A	10.0	0.5	8
TCSCS0G156*AAR	A	15.0	0.6	8
TCSCS0G156*BAR	B	15.0	0.6	8
TCSCS0G226*BAR	B	22.0	0.9	8
TCSCS0G336*BAR	B	33.0	1.3	8
TCSCS0G476*CAR	C	47.0	1.9	8
TCSCS0G686*CAR	C	68.0	2.7	8
TCSCS0G107*DAR	D	100.0	4.0	8
6.3 volt @ 85°C (4 volt @ 125°C)				
TCSCS0J335*AAR	A	3.3	0.5	8
TCSCS0J475*AAR	A	4.7	0.5	8
TCSCS0J685*AAR	A	6.8	0.5	8
TCSCS0J106*AAR	A	10.0	0.6	8
TCSCS0J106*BAR	B	10.0	0.6	8
TCSCS0J156*BAR	B	15.0	0.8	8
TCSCS0J226*BAR	B	22.0	1.3	8
TCSCS0J336*BAR	B	33.0	2.0	8
TCSCS0J476*BAR	B	47.0	3.0	8
TCSCS0J336*CAR	C	33.0	2.0	8
TCSCS0J476*CAR	C	47.0	3.0	8
TCSCS0J686*DAR	D	68.0	4.3	8
TCSCS0J107*DAR	D	100.0	6.3	8
10 volt @ 85°C (6.3 volt @ 125°C)				
TCSCS1A225*AAR	A	2.2	0.5	8
TCSCS1A335*AAR	A	3.3	0.5	8
TCSCS1A475*AAR	A	4.7	0.5	8
TCSCS1A685*AAR	A	6.8	0.7	8
TCSCS1A685*BAR	B	6.8	0.7	8
TCSCS1A106*AAR	A	10.0	1.0	8
TCSCS1A106*BAR	B	10.0	1.0	8
TCSCS1A156*BAR	B	15.0	1.5	8
TCSCS1A226*BAR	B	22.0	2.2	8
TCSCS1A226*CAR	C	22.0	2.2	8
TCSCS1A336*CAR	C	33.0	3.3	8
TCSCS1A476*CAR	C	47.0	4.7	8
TCSCS1A476*DAR	D	47.0	4.7	8
TCSCS1A686*DAR	D	68.0	6.8	8
TCSCS1A107*DAR	D	100.0	10.0	8
16 volt @ 85°C (10 volt @ 125°C)				
TCSCS1C155*AAR	A	1.5	0.5	8
TCSCS1C225*AAR	A	2.2	0.5	8
TCSCS1C335*AAR	A	3.3	0.5	8
TCSCS1C475*AAR	A	4.7	0.7	8
TCSCS1C475*BAR	B	4.7	0.7	8
TCSCS1C685*AAR	A	6.8	1.0	8
TCSCS1C685*BAR	B	6.8	1.0	8
TCSCS1C106*BAR	B	10.0	1.6	8
TCSCS1C156*CAR	C	15.0	2.4	8
TCSCS1C226*CAR	C	22.0	3.5	8
TCSCS1C336*DAR	D	33.0	5.3	8
TCSCS1C476*CAR	C	47.0	7.5	8
TCSCS1C476*DAR	D	47.0	7.5	8
20 volt @ 85°C (13 volt @ 125°C)				
TCSCS1D105*AAR	A	1.0	0.5	6
TCSCS1D155*AAR	A	1.5	0.5	8
TCSCS1D225*AAR	A	2.2	0.5	8
TCSCS1D335*AAR	A	3.3	0.7	8
TCSCS1D335*BAR	B	3.3	0.7	8
TCSCS1D475*BAR	B	4.7	1.0	8
TCSCS1D685*BAR	B	6.8	1.4	8
TCSCS1D106*CAR	C	10.0	2.0	8
TCSCS1D156*CAR	C	15.0	3.0	8
TCSCS1D226*DAR	D	22.0	4.4	8
TCSCS1D336*DAR	D	33.0	6.6	8

\* Insert K for ±10% tolerance and M for ±20%.

Part No.	Case Size	Capacitance (μF)	DCL(μF) Max.	DF(%) Max.
25 volt @ 85°C (16 volt @ 125°C)				
TCSCS1E684*AAR	A	0.68	0.5	6
TCSCS1E105*AAR	A	1.0	0.5	6
TCSCS1E155*AAR	A	1.5	0.5	8
TCSCS1E225*AAR	A	2.2	0.6	8
TCSCS1E225*BAR	B	2.2	0.6	8
TCSCS1E335*BAR	B	3.3	0.8	8
TCSCS1E475*BAR	B	4.7	1.2	8
TCSCS1E685*CAR	C	6.8	1.7	8
TCSCS1E106*CAR	C	10.0	2.5	8
TCSCS1E156*DAR	D	15.0	3.7	8
TCSCS1E226*DAR	D	22.0	5.5	8
35 volt @ 85°C (22 volt @ 125°C)				
TCSCS1V474*AAR	A	0.47	0.5	6
TCSCS1V684*AAR	A	0.68	0.5	6
TCSCS1V105*AAR	A	1.0	0.5	6
TCSCS1V155*AAR	A	1.5	0.5	8
TCSCS1V155*BAR	B	1.5	0.5	8
TCSCS1V225*BAR	B	2.2	0.7	8
TCSCS1V335*BAR	B	3.3	1.1	8
TCSCS1V475*CAR	C	4.7	1.6	8
TCSCS1V685*CAR	C	6.8	2.3	8
TCSCS1V106*DAR	D	10.0	3.5	8
TCSCS1V156*DAR	D	15.0	5.2	8

\* Insert K for ±10% tolerance and M for ±20%.

# SCE Series Low ESR



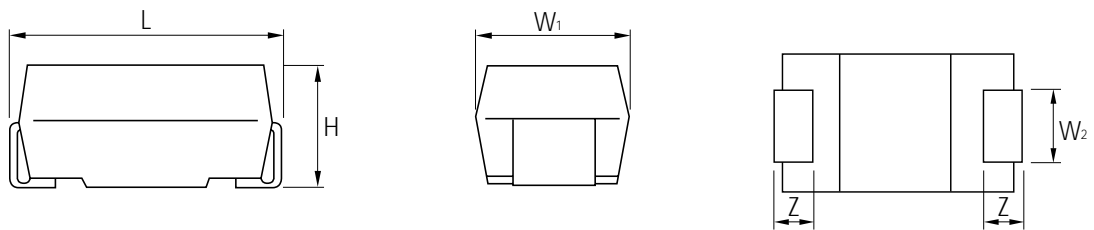
## FEATURES

- Designed for very low ESR
- Molded Case available in four case codes.
- Extended Range Values.
- Compatible with automatic pick and place equipment.
- Meets or Exceeds EIA Standard 53BAAC

## PERFORMANCE / ELECTRICAL CHARACTERISTICS

- Operating Temperature: -55 °C to +85 °C (To +125 °C with voltage derating)
- Capacitance Range: 0.47 $\mu$ F to 220 $\mu$ F
- Capacitance Tolerance:  $\pm$ 20%,  $\pm$ 10% standard
- Operating Voltage: 4WVDC to 35WVDC
- Compliant Terminations: 90/10 SnPb finish

## Case Dimensions



Unit : mm(inch)

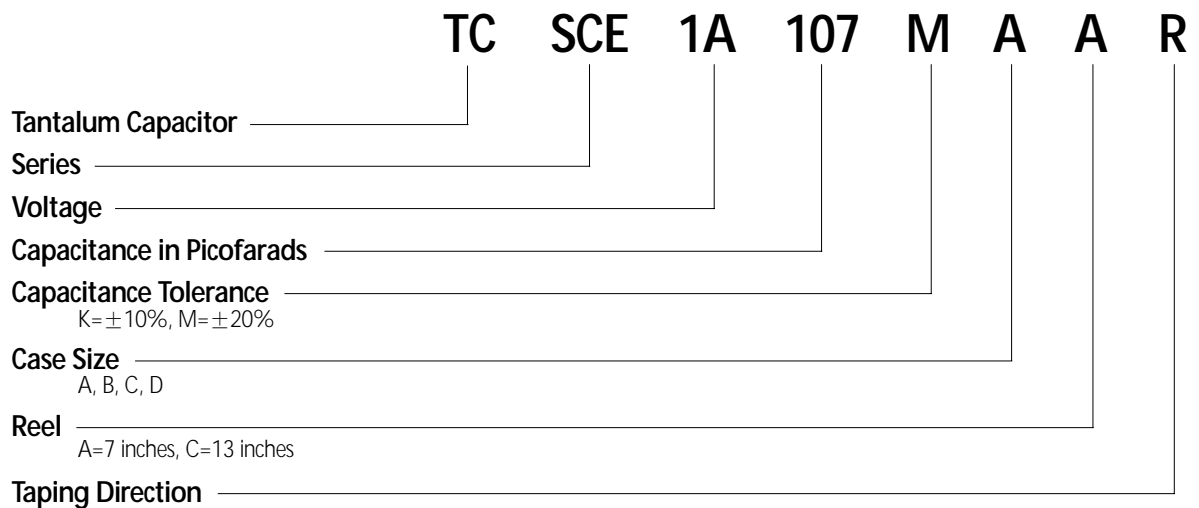
Case Code	L	W <sub>1</sub>	W <sub>2</sub>	H	Z
A	3.2 $\pm$ 0.2 (0.126 $\pm$ 0.008)	1.6 $\pm$ 0.2 (0.063 $\pm$ 0.008)	1.2 $\pm$ 0.1 (0.047 $\pm$ 0.004)	1.6 $\pm$ 0.2 (0.063 $\pm$ 0.008)	0.8 $\pm$ 0.3 (0.031 $\pm$ 0.012)
B	3.5 $\pm$ 0.2 (0.138 $\pm$ 0.008)	2.8 $\pm$ 0.2 (0.110 $\pm$ 0.008)	2.2 $\pm$ 0.1 (0.087 $\pm$ 0.004)	1.9 $\pm$ 0.2 (0.075 $\pm$ 0.008)	0.8 $\pm$ 0.3 (0.031 $\pm$ 0.012)
C	6.0 $\pm$ 0.3 (0.236 $\pm$ 0.012)	3.2 $\pm$ 0.3 (0.126 $\pm$ 0.012)	2.2 $\pm$ 0.1 (0.087 $\pm$ 0.004)	2.5 $\pm$ 0.3 (0.098 $\pm$ 0.012)	1.3 $\pm$ 0.3 (0.051 $\pm$ 0.012)
D	7.3 $\pm$ 0.3 (0.288 $\pm$ 0.012)	4.3 $\pm$ 0.3 (0.169 $\pm$ 0.012)	2.4 $\pm$ 0.1 (0.094 $\pm$ 0.004)	2.8 $\pm$ 0.3 (0.110 $\pm$ 0.012)	1.3 $\pm$ 0.3 (0.051 $\pm$ 0.012)



## Case Size and Rating Voltage

	4(0G)	6.3(0J)	10(1A)	16(1C)	20(1D)	25(1E)	35(1V)
0.47(474)						A	
0.68(684)					A	A	
1.0(105)				A	A	A	
1.5(155)				A	A		
2.2(225)		A	A	A	A		B C
3.3(335)		A	A	A B		B	C
4.7(475)		A	A B	A B	B C		C D
6.8(685)	A	A B	A B	B C	B C		D
10(106)	A	A B	A B C	B C	C	C D	D
15(156)	A	B	B C		C D	D	
22(226)	B	B C	C	C D	D	D	
33(336)	C		D	D	D		
47(476)		C D	D	D			
68(686)		D	D				
100(107)		D	D				
150(157)							
220(227)		D					

### How to Order:



## SCE Ratings & Part Number Reference

Part No.	Case Size	Capacitance (μF)	DCL(μA) Max.	DF(%) 120Hz Max.	ESR(Ω) 100KHz Max.
4 volt @ 85°C (2.5 volt @ 125°C)					
TCSCEOG685*AAR	A	6.8	0.5	8	3.0
TCSCEOG106*AAR	A	10.0	0.5	8	2.0
TCSCEOG156*AAR	A	15.0	0.6	8	1.5
TCSCEOG226*BAR	B	22.0	0.9	8	0.6
TCSCEOG336*CAR	C	33.0	1.3	8	0.5
6.3 volt @ 85°C (4 volt @ 125°C)					
TCSCEOJ225*AAR	A	2.2	0.5	8	6.0
TCSCEOJ335*AAR	A	3.3	0.5	8	6.0
TCSCEOJ475*AAR	A	4.7	0.5	8	3.5
TCSCEOJ685*AAR	A	6.8	0.5	8	2.0
TCSCEOJ685*BAR	B	6.8	0.5	8	1.2
TCSCEOJ106*AAR	A	10.0	0.6	8	2.0
TCSCEOJ106*BAR	B	10.0	0.6	8	1.5
TCSCEOJ156*BAR	B	15.0	0.8	8	1.0
TCSCEOJ226*BAR	B	22.0	1.3	8	0.8
TCSCEOJ226*CAR	C	22.0	1.3	8	0.5
TCSCEOJ476*CAR	C	47.0	3.0	8	0.4
TCSCEOJ476*DAR	D	47.0	3.0	8	0.22
TCSCEOJ686*DAR	D	68.0	4.3	8	0.2
TCSCEOJ107*DAR	D	100.0	6.3	8	0.2
TCSCEOJ227*DAR	D	220.0	13.9	8	0.15
10 volt @ 85°C (6.3 volt @ 125°C)					
TCSCE1A225*AAR	A	2.2	0.5	8	6.0
TCSCE1A335*AAR	A	3.3	0.5	8	4.0
TCSCE1A475*AAR	A	4.7	0.5	8	3.0
TCSCE1A475*BAR	B	4.7	0.7	8	1.5
TCSCE1A685*AAR	A	6.8	0.7	8	3.0
TCSCE1A685*BAR	B	6.8	0.7	8	1.2
TCSCE1A106*AAR	A	10.0	1.0	8	2.0
TCSCE1A106*BAR	B	10.0	1.0	8	1.0
TCSCE1A106*CAR	C	10.0	1.0	8	0.8
TCSCE1A156*BAR	B	15.0	1.5	8	0.7
TCSCE1A156*CAR	C	15.0	1.5	8	0.5
TCSCE1A226*CAR	C	22.0	2.2	8	0.4
TCSCE1A336*DAR	D	33.0	3.3	8	0.25
TCSCE1A476*DAR	D	47.0	4.7	8	0.22
TCSCE1A686*DAR	D	68.0	6.8	8	0.2
TCSCE1A107*DAR	D	100.0	10.0	8	0.15
16 volt @ 85°C (10 volt @ 125°C)					
TCSCE1C105*AAR	A	1.0	0.5	4	6.0
TCSCE1C155*AAR	A	1.5	0.5	8	6.0
TCSCE1C225*AAR	A	2.2	0.5	8	4.0
TCSCE1C335*AAR	A	3.3	0.5	8	4.0
TCSCE1C335*BAR	B	3.3	0.5	8	2.0
TCSCE1C475*AAR	A	4.7	0.7	8	3.0
TCSCE1C475*BAR	B	4.7	0.7	8	1.5
TCSCE1C685*BAR	B	6.8	1.0	8	1.2
TCSCE1C685*CAR	C	6.8	1.0	8	0.8
TCSCE1C106*BAR	B	10.0	1.6	8	1.0
TCSCE1C106*CAR	C	10.0	1.6	8	0.6
TCSCE1C226*CAR	C	22.0	3.5	8	0.4
TCSCE1C226*DAR	D	22.0	3.5	8	0.3
TCSCE1C336*DAR	D	33.0	5.3	8	0.3
TCSCE1C476*DAR	D	47.0	7.5	8	0.2
20 volt @ 85°C (13 volt @ 125°C)					
TCSCE1D684*AAR	A	0.68	0.5	4	8.0
TCSCE1D105*AAR	A	1.0	0.5	8	5.5
TCSCE1D155*AAR	A	1.5	0.5	8	4.5
TCSCE1D225*AAR	A	2.2	0.5	8	4.0
TCSCE1D475*BAR	B	4.7	1.0	8	1.5
TCSCE1D475*CAR	C	4.7	1.0	8	0.6
TCSCE1D685*BAR	B	6.8	1.4	8	1.5
TCSCE1D685*CAR	C	6.8	1.4	8	0.6
TCSCE1D106*CAR	C	10.0	2.0	8	0.5
TCSCE1D156*CAR	C	15.0	3.0	8	0.4
TCSCE1D156*DAR	D	15.0	3.0	8	0.4
TCSCE1D226*DAR	D	22.0	4.4	8	0.3
TCSCE1D336*DAR	D	33.0	6.6	8	0.3

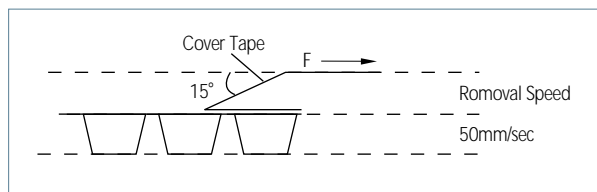
Part No.	Case Size	Capacitance ( $\mu$ F)	DCL( $\mu$ A) Max.	DF(%) 120Hz Max.	ESR( $\Omega$ ) 100KHz Max.
25 volt @ 85 $^{\circ}$ C (16 volt @ 125 $^{\circ}$ C)					
TCSCS1E474*AAR	A	0.47	0.5	4	9.0
TCSCS1E684*AAR	A	0.68	0.5	6	6.0
TCSCS1E105*AAR	A	1.0	0.5	8	4.0
TCSCS1E335*AAR	B	3.3	0.8	8	2.0
TCSCS1E475*BAR	C	4.7	1.2	8	0.6
TCSCS1E106*BAR	C	10.0	2.5	8	0.6
TCSCS1E106*BAR	D	10.0	2.5	8	0.4
TCSCS1E156*CAR	D	15.0	3.7	8	0.4
TCSCS1E226*CAR	D	22.0	5.5	8	0.3
35 volt @ 85 $^{\circ}$ C (22 volt @ 125 $^{\circ}$ C)					
TCSCS1V225*BAR	B	2.2	0.7	8	2.5
TCSCS1V335*CAR	C	3.3	1.1	8	0.8
TCSCS1V475*CAR	C	4.7	1.6	8	1.0
TCSCS1V475*DAR	D	4.7	1.6	8	1.0
TCSCS1V685*DAR	D	6.8	2.3	8	0.5
TCSCS1V106*DAR	D	10.0	3.5	8	0.4

\* Insert K for  $\pm$ 10% tolerance and M for  $\pm$ 20%.

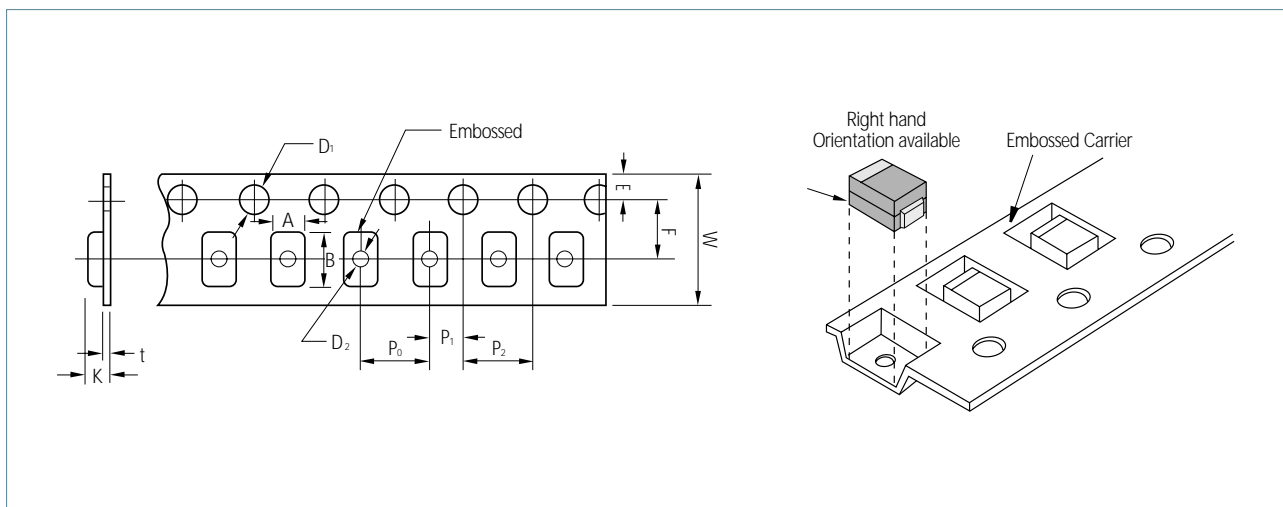
# PACKAGING INFORMATION

SAMSUNG's Molded Tantalum Chip Capacitors are packaged in 8mm and 12mm plastic tape on 7" and 13" reels, in accordance with EIA Standard.

The tension of removing the cover tape:  $F=10 \sim 70g$



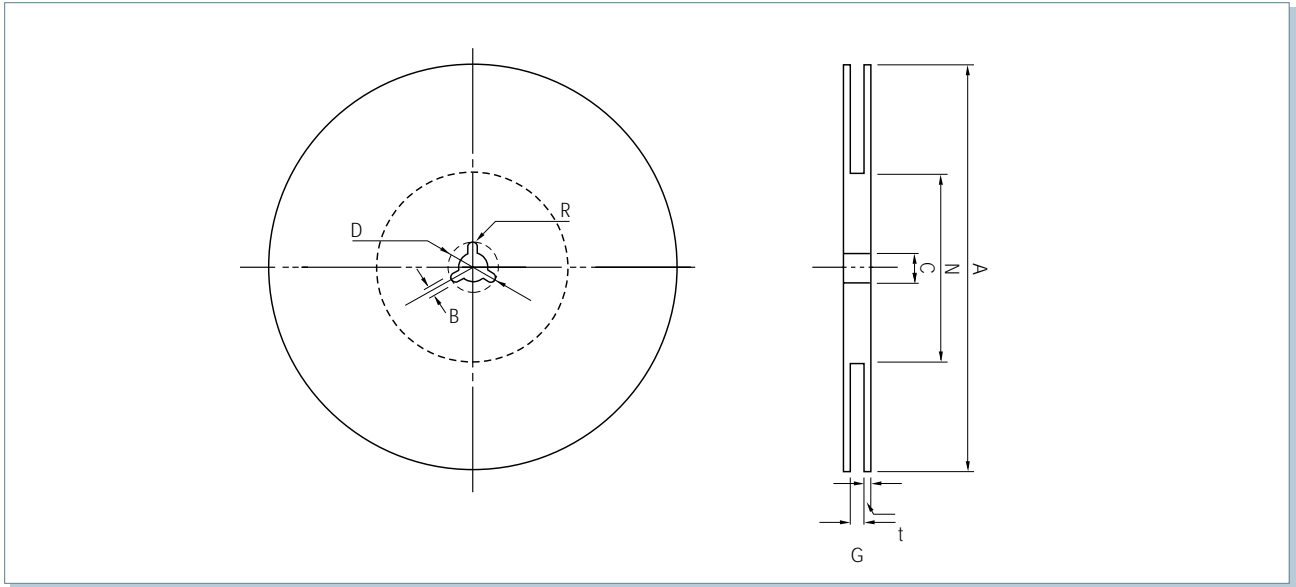
## CARRIER TAPE DIMENSION



Unit : mm(inch)

Case Code	$W \pm 0.3$ ( $\pm 0.012$ )	$F \pm 0.1$ ( $\pm 0.004$ )	$E \pm 0.1$ ( $\pm 0.004$ )	$P_0 \pm 0.1$ ( $\pm 0.004$ )	$P_1 \pm 0.1$ ( $\pm 0.004$ )	$P_2 \pm 0.1$ ( $\pm 0.004$ )	$D_1 + 0.1$ ( $+ 0.004$ )	$D_2$ Min.	$t$	$A \pm 0.2$ ( $\pm 0.008$ )	$B \pm 0.2$ ( $\pm 0.008$ )	$K \pm 0.2$ ( $\pm 0.008$ )
P	8 (0.315)	3.5 (0.138)	1.75 (0.069)	4 (0.157)	2 (0.079)	4 (0.157)	$\phi 1.5$ (0.059)	$\phi 1.0$ (0.039)	0.2 (0.008)	1.4 (0.055)	2.3 (0.091)	1.4 (0.055)
A										1.9 (0.075)	3.5 (0.138)	1.9 (0.075)
B									0.3 (0.012)	3.3 (0.130)	3.8 (0.150)	2.1 (0.083)
C	12 (0.472)	5.5 (0.217)	8 (0.315)				$\phi 1.5$ (0.059)	0.3 (0.012)	3.7 (0.146)	6.4 (0.252)	3.0 (0.118)	
D									4.8 (0.189)	7.7 (0.303)	3.3 (0.130)	

## REEL DIMENSION



Unit : mm(inch)

Tape Width	$A \pm 2$ ( $\pm 0.079$ )	N Min.	$C \pm 0.5$ ( $\pm 0.020$ )	$D \pm 0.5$ ( $\pm 0.020$ )	$B \pm 0.51$ ( $\pm 0.020$ )	$G_{-1}^{+2}$ ( $+0.079$ $-0.039$ )	$t \pm 0.5$ ( $\pm 0.020$ )	R
8mm	$\varnothing 178$ (7)	$\varnothing 50$ (1.969)	$\varnothing 13$ (0.512)	$\varnothing 21$ (0.827)	2 (0.079)	10 (0.394)	2 (0.079)	0.99 (0.039)
12mm						14 (0.551)		
8mm	$\varnothing 330$ (13)	$\varnothing 80$ (3.150)	$\varnothing 13$ (0.512)	$\varnothing 21$ (0.827)	2 (0.079)	10 (0.394)	2 (0.079)	0.99 (0.039)
12mm						14 (0.551)		

## Quantity per Reel

Case Code	Dia. 178mm	Dia. 330mm
P	3,000 pieces / Reel	
A, B	2,000 pieces / Reel	8,000 pieces / Reel
C, D	500 pieces / Reel	2,500 pieces / Reel